

## SEABIRD ISLANDS

No. 161

## Eagle Island, Great Barrier Reef, Queensland

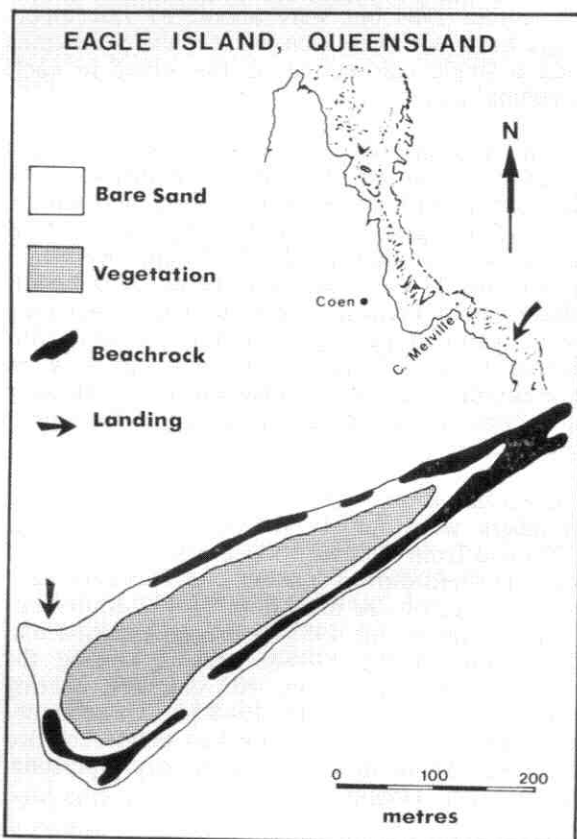
**Location:** 14°42'S., 145°23'E., 8 kilometres west-south-west of Lizard Island, Qld.

**Status:** Vacant Crown Land; Queensland Fauna Sanctuary.

**Description:** 0.22 ha (vegetation only); 440 m x 120 m at its widest (vegetation only), it is a narrow triangular cay situated at the northern edge of Eyrie Reef, a large reef of about 12 square kilometres. The island's main axis runs south-west — north-east, with the broader end at the south-west. Beachrock is exposed on all sides. There are intertidal sand lobes at the corners of the island's broad end. The central part is mostly 4.3 to 5.2 m high and edges 3.3 m to 3.9 m. The vegetation is grassflat (e.g. *Achyranthes aspera*, *Lepturus repens*, *Remirea maritima*, *Sporobolus virginicus*, *Thuarea involuta*), dense shrub (e.g. *Scaevola taccada*, *Suriana maritima*) and low open woodland (mainly *Argusia argentea*). A total of 43 plant species has been recorded.

**Landing:** By dinghy, usually onto the beach on the north-western side. A small yacht can be brought in close to the island on this side, although care should be exercised in navigating among patch reefs.

**Ornithological History:** Eagle Island was visited and named by Captain James Cook and Sir Joseph Banks in 1770, on their return from Lizard Island in a small "pinnacle" to the *Endeavour* anchored at Cape Flattery. They remarked upon the abundant "seafowl"<sup>3</sup>. The next recorded visit by an ornithologist was that of MacGillivray<sup>4</sup> in 1848, who came to see a large stick nest reported by Cook and



Banks. Domm<sup>1</sup> kept records of breeding seabirds between 1973 and 1976. R. Buckley noted vegetation and birds during several visits in 1979. G. Smith made observations during brief periods in February 1982, April 1983, and for extended periods from November 1983 to mid-March 1984 and late October 1984 to mid-March 1985.

### Breeding Seabirds and Status

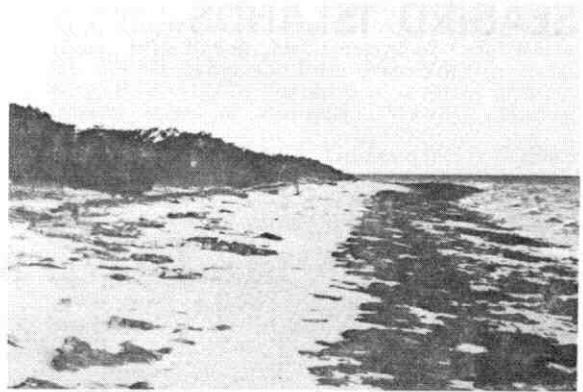
*Egretta sacra* Eastern Reef Egret — About 43 white-phase and 17 grey-phase birds appear to reside at Eagle Island. Nests and young have been observed but no eggs have been seen in the nests. Most nesting probably takes place in the dense shrub thickets. Breeding appeared to coincide with the hotter months of the year.

*Hydroprogne caspia* Caspian Tern — Breeding occurs during the cooler months of the year. One adult was noted in April 1983; though no nest was found the bird was strongly defensive. A fledgling and two adults were observed in November 1984 but were absent by December. Eggs have not been seen but evidence indicates that a single pair nested on the island in each breeding season.

*Sterna dougallii* Roseate Tern — A maximum of 24 birds was noted in late November — early December 1983. Nine clutches were laid with a total of 13 eggs. In 1984-85, a maximum of 16 adults was counted. In all, 20 clutches were laid producing 33 eggs. Roseate Terns nested with Black-naped Terns during both seasons, but they were recorded nesting on the island also with Lesser Crested Terns by Domm<sup>1</sup>. Birds were present on the island from November to February and breeding activity was recorded in December and January.

*Sterna sumatrana* Black-naped Tern — Peak numbers were noted November to December 1983 and from October to December 1984. Numbers declined during January and February each summer season. A maximum of 142 adults was counted during the 1983-84 breeding season and 251 adults in the 1984-85 season. During the 1983-84 breeding season, 103 clutches, bearing 168 eggs, were laid. In 1984-85, 335 clutches produced 542 eggs. Nesting has been recorded between September and February (personal observation, Domm).

*Sterna anaethetus* Bridled Tern — Activity associated with nest site selection occurred during late October 1983 and late November 1984. Domm<sup>1</sup> recorded that about 300 birds nested annually on the island. Using counts from seven marked 20 m by 20 m plots, an estimated average density of 190 nests per hectare was calculated. By extrapolation for the breeding area, a total of about 90 birds was estimated for



• Part of the beach and fringing vegetation on Eagle Island.

the island, on average. Adults usually arrived to breed in October or November. The first fledglings were noted in February.

*Sterna bergii* Crested Tern — Numbers increase during November and December. By January, an average of 2 000 birds were reported on the island for the years 1973-76<sup>1</sup>. Counts in early February 1982, January 1984 and January 1985 were 2 000, 2 330 and 2 162 adults respectively. About 520 chicks were noted in late February 1984. During the 1984-85 season 1 561 eggs were laid. Domm<sup>1</sup> observed that there was heavy mortality of juveniles just prior to fledging, although he did not mention causes. Turnstones *Arenaria interpres*, Silver Gulls, Eastern Reef Egrets, White-bellied Sea-Eagles *Haliaeetus leucogaster* and Ghost Crabs predated eggs and chicks.

*Sterna bengalensis* Lesser Crested Tern — A maximum of 150 adults was recorded on the island during the 1983-84 season. Eggs were laid among Black-naped Tern nests and some of the latter were destroyed because of displacement. A total of 91 clutches was laid at this locality. Many eggs were washed away by waves during strong winds combined with high tides. During this period adults abandoned nests, and eggs were immediately taken by turnstones and gulls. A further 51 nests were located on the edge of a Crested Tern colony in late January. A maximum of 186 adults was counted during the 1984-85 season. About 400 eggs were laid, so that most



• View over the centre of the island.

birds must have laid more than one clutch in that season. In the space of a week in early December, 138 eggs disappeared. Lesser Crested Terns are extremely sensitive while nesting and abandonment of nests has been reported from One Tree Island, Capricorn Group<sup>2</sup>. Usually present to breed between November and February.

#### Factors Affecting Status

The island is on the main shipping channel and yachts, marlin fishing boats and dinghys from Lizard Island occasionally call in, particularly during the calm period from October to December. Evidence of barbeques on the beach has been seen. Visits by persons who are not particularly "bird wise" could have serious consequences for the seabird breeding populations. Some tourists have been seen walking through colonies and photographing nests during the heat of the day when dessication of eggs and chicks occurs. Silver Gulls are quick to move in and take unattended eggs and chicks after human intrusion, before adults have time to resume their nesting positions. Recent expansion of the Lizard Island Resort and the fact that the resort is now open for the whole of the main breeding season, could mean increased pressure on the colonies.

#### Other Seabirds Recorded

<i>Pelecanus conspicillatus</i>	Australian Pelican
<i>Sula sula</i>	Red-footed Booby
<i>Sula leucogaster</i>	Brown Booby
<i>Haematopus longirostris</i>	Pied Oystercatcher
<i>Haematopus fuliginosus</i>	Sooty Oystercatcher
<i>Larus novaehollandiae</i>	Silver Gull
<i>Sterna hirundo</i>	Common Tern
<i>Sterna fuscata</i>	Sooty Tern
<i>Sterna albifrons</i>	Little Tern
<i>Anous stolidus</i>	Common Noddy
<i>Anous minutus</i>	Black Noddy

#### Banding

Commenced December, 1983.

*Sterna dougallii* — 27 chicks, 1 adult.

*Sterna sumatrana* — 341 chicks, 1 adult.

*Sterna anaethetus* — 17 chicks.

*Sterna bergii* — 289 chicks; one recovery from banding place and one from PNG 616 km ENE about six weeks after banding.

#### Bibliography

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#### Acknowledgements

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G. C. Smith, *Australian Environmental Studies*, Griffith University, Nathan, Qld. 4111.  
R. C. Buckley, P.O. Box 114, Eastwood, S.A. 5063.